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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,360	11/19/2003	Richard R. Bijjani	L0632.70001US03	6710
7590	11/24/2004		EXAMINER HO, ALLEN C	
Randy J. Pritzker Wolf, Greenfield & Sacks, P.C. 600 Atlantic Avenue Boston, MA 02210			ART UNIT 2882	PAPER NUMBER

DATE MAILED: 11/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/717,360

Applicant(s)

BIJJANI ET AL.

Examiner

Allen C. Ho

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PH

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 7 is objected to because of the following informalities: line 1, "data" should be replaced by --device--. Appropriate correction is required.
2. Claim 12 is objected to because of the following informalities: line 4, "a" should be replaced by --the--. Appropriate correction is required.
3. Claim 17 is objected to because of the following informalities: --detection system-- should be inserted after "explosion". Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-13 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Peschmann (U. S. Patent No. 5,367,552).

With regard to claim 1, Peschmann disclosed an explosive detection system comprising: a network, which connects a slip ring (58), a motion control (22), a stationary control module (60), object detection system (26), and an object reconstruction system (28); a device (10) coupled to the network that scans an object and generates information about the object from the scan; and an external computer (26), located remotely from the device, that receives the

information over the network and implements an algorithm to make a threat determination about the object.

With regard to claim 2, Peschmann disclosed the system of claim 1, wherein the device includes a CT scanner (24).

With regard to claim 3, Peschmann disclosed the system of claim 1, wherein the device includes a dual-energy x-ray scanner (column 10, lines 48-68).

With regard to claim 4, Peschmann disclosed the system of claim 1, wherein the device includes a combination dual-energy x-ray and CT scanner (column 10, lines 48-68).

With respect to claim 5, Peschmann disclosed the system of any of claims 1-4, wherein the information includes that from which a density (column 8, lines 1-2) and a mass (column 7, lines 36-37) of the object can be determined by the computer.

With regard to claim 6, Peschmann disclosed a method for making a threat determination about an object comprising: scanning the object with a scanning device (10) to obtain scan data; generating (26) information about the object from the scan data; transmitting the information over a network to an external computer (28), located remotely from the scanning device; and with the external computer, implementing an algorithm to make a threat determination about the object (column 6, lines 14-18).

With regard to claim 7, Peschmann disclosed the method of claim 6, wherein the scan device is a CT scanner (24), and wherein the step of scanning includes the step of performing a computed tomography scan with the CT scanner.

With regard to claim 8, Peschmann disclosed the method of claim 6, wherein the scanning device is a dual-energy x-ray scanner (24), and wherein the step of scanning includes

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the step of performing a high energy and a low energy scan using the dual-energy x-ray scanner (column 10, lines 48-68).

With regard to claims 9 and 11, Peschmann disclosed the method of claim 6, wherein the scanning device is a combination dual-energy x-ray and CT scanner (24), and wherein the step of scanning includes performing a high and low energy x-ray scan and a computed tomography scan using a combination dual energy x-ray and CT scanner (column 10, lines 48-68).

With respect to claim 10, Peschmann disclosed the method of any of the previous claims 6-9, wherein the information includes that from which a density (column 8, lines 1-2) and a mass (column 7, lines 36-37) of the object can be determined by the computer.

With regard to claim 12, Peschmann disclosed the method of claim 6, wherein the step of generating information about the object comprises: i) forming a plurality of picture elements; ii) segmenting the group of picture elements from their background; iii) describing the group of picture elements by a set of features; and iv) using the resulting set of features to classify the group of picture elements as a potential target object (column 8, lines 41-63).

With regard to claim 13, Peschmann disclosed an explosive detection system comprising: a) a network; (b) at least one radiation-based scanner (10) connected to the network generating information about an item under inspection, the information includes at least values representative of density and effective atomic number (dual-energy) over substantially all of the item under inspection; and c) a computer (26), external to the at least one scanner, connected to the scanner via the network, the computer configured to receive the information over the network and to execute algorithms that detect potential target objects within the item under inspection.

With regard to claim 17, Peschmann disclosed the explosion detection system of claim 13, wherein the network comprises an Ethernet network (column 6, lines 4-9).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peschmann (U. S. Patent No. 5,367,552) as applied to claim 13 above, and further in view of Willson (U. S. Patent No. 6,018,562).

With regard to claim 14, Peschmann disclosed the explosion detection system of claim 13, wherein the algorithm combines information on effective atomic number (dual-energy) and density to detect a potential target object. However, Peschmann failed to teach combining confidence level associated with the information on effective atomic number and density with information on effective atomic number and density to detect a potential target object.

Willson disclosed an apparatus that uses confidence level to detect a potential target object (column 17, lines 43-47).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine confidence level associated with the information on effective atomic number and density with information on effective atomic number and density to detect a

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potential target object, since a person would be motivated to identify a target object using statistical analysis as the measurements involve uncertainties.

With regard to claim 15, Peschmann in combination with Willson disclosed the explosion detection system of claim 14, wherein the algorithm comprises a region-growing algorithm (column 7, lines 27-35).

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peschmann (U. S. Patent No. 5,367,552) and Willson (U. S. Patent No. 6,018,562) as applied to claim 14 above, and further in view of Simanovsky *et al.* (U. S. Patent No. 6,026,143).

With regard to claim 16, Peschmann in combination with Willson disclosed the explosion detection system of claim 14. However, Peschmann and Willson failed to teach that the algorithm combines information on proximity of a region to metal to detect potential target object.

Simanovsky *et al.* disclosed an algorithm that combines divided sheet explosives in proximity of a metal (column 34, lines 15-27). Simanovsky *et al.* taught that individual parts of a sheet explosive might be eliminated if they are not combined.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combines information on proximity of a region to metal to detect potential target object, since a person would be motivated to sheet explosives.

Response to Arguments

9. Applicant's arguments filed 20 September 2004 with respect to claims 1, 5, 6, and 10 have been fully considered and are persuasive. The rejection of claims 1, 5, 6, and 10 under 35 U.S.C. §112 first paragraph has been withdrawn.

10. Applicant's arguments filed 20 September 2004 have been fully considered but they are not persuasive.

The applicants argue that an "SBUS" is not a network. The examiner does not dispute this assertion. However, the examiner would like to point out that a network is more than just bus or a single connection; it is a group of interconnected components capable of communicating with each other. The Merriam-Webster's Collegiate dictionary defines a "network" as an interconnected or interrelated chain, group, or system. Peschmann disclosed a system that comprises a group of interconnected components, which satisfies this definition.

The applicants argue Peschmann failed to disclose an external computer located remotely from the device. The examiner respectfully disagrees. The term "remote" is not defined by the claim or the specification. Does the external computer have to be located in a different room, a different building, or a different city? The Merriam-Webster's Collegiate dictionary defines "remote" as separated by an interval. Peschmann disclosed an external computer that is separated by an interval from the device, which satisfies this definition.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- (1) McClelland *et al.* (U. S. Patent No. 6,707,879 B2) disclosed a remote baggage screening system.
- (2) Aufrichtig *et al.* (U. S. Patent No. 6,359,961 B1) disclosed a remotely operated radiographic imaging system.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen C. Ho whose telephone number is (571) 272-2491. The examiner can normally be reached on Monday - Friday from 8:00 am - 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward J. Glick can be reached at (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Allen C. Ho
Patent Examiner
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17 November 2004